IN THE CLAIMS

Please amend the claims as follows:

1.   (Currently Amended) A method comprising<u>:</u>

<u>determining a number of entries to lock in a translation look-aside buffer (TLB), wherein</u> <u>determining a number of entries to lock comprises counting unique page access instances during</u> <u>an active period of a process, determining a value of a page usage metric for the process, and</u> <u>comparing the value of the page usage metric to values of page usage metrics for other</u> <u>processes; and</u>

locking at least one entry in [[a]] <u>the</u> translation look-aside buffer (TLB) to make the at least one entry available to [[a]] <u>the</u> process during at least two active periods of the process.

2-5.   (Canceled)

6.   (Currently Amended) ~~The method of claim 4 wherein determining a number of entries to lock comprises~~ <u>A method comprising:</u>

<u>determining a number of entries to lock in a translation look-aside buffer (TLB), wherein</u> <u>determining a number of entries to lock comprises counting unique page access instances during</u> <u>an active period of a process, determining a value of a page usage metric for the process, and</u> comparing the value of the page usage metric to a sum of values of page usage metrics for a plurality of processes[[.]]<u>;</u>

<u>locking at least one entry in the translation look-aside buffer (TLB) to make the at least</u> <u>one entry available to the process during at least two active periods of the process.</u>

7.   (Currently Amended) The method of claim [[4]] <u>1</u> wherein determining the value of the page usage metric comprises considering an amount of time the process is active.

8.   (Original) The method of claim 1 wherein the TLB includes a plurality of entries, the method further comprising determining which of the plurality of entries to lock.

9.   (Original) The method of claim 8 wherein determining which of the plurality of entries to lock comprises selecting a most recently accessed entry.

10.   (Original) The method of claim 8 wherein determining which of the plurality of entries to lock comprises selecting a most commonly accessed entry.

11.   (Currently Amended) A method comprising:

counting a number of unique page accesses made by a process running on a processor; ~~and~~

determining a value of a page usage metric from the number of unique page accesses;

determining a number of TLB entries to lock in response to the value of the page usage metric, wherein determining the number of TLB entries to lock comprises considering the value of the page usage metric and values of page usage metrics for other processes running on the processor; and

locking at least one translation look-aside buffer (TLB) entry that corresponds to the process.

12.   (Canceled)

13.   (Canceled)

14.   (Currently Amended) The method of claim ~~12~~ 11 wherein determining the number of TLB entries to lock is based, at least in part, on a frequency of invocation of the process.

15.   (Currently Amended) The method of claim ~~12~~ 11 wherein determining the number of TLB entries to lock is based, at least in part, on a priority level of the process.

16-18. (Canceled)

19.   (Currently Amended) The method of claim ~~16~~ 11 wherein determining the value of the page usage metric comprises considering an amount of time the process is active.

20.   (Currently Amended) An apparatus including a medium adapted to hold machine-accessible instructions that when accessed result in a machine performing:

        counting a number of unique page accesses made by a process; ~~and~~

        determining a value of a page usage metric from the number of unique page accesses;

        determining a number of TLB entries to lock in response to the value of the page usage metric, wherein determining the number of TLB entries to lock comprises considering the value of the page usage metric and values of page usage metrics for other processes; and

        locking at least one translation look-aside buffer (TLB) entry that corresponds to the process.

21.   (Canceled)

22.   (Currently Amended) The apparatus of claim ~~21~~ 20 wherein the page usage metric is based, at least in part, on a frequency of invocation of the process.

23.   (Currently Amended) The apparatus of claim ~~21~~ 20 wherein the page usage metric is based, at least in part, on a priority level of the process.

24-27. (Canceled)

28.   (Currently Amended) An electronic system comprising:

        an amplifier to amplify communications signals;

        a processor coupled to the amplifier, the processor including a translation look-aside buffer (TLB) with lockable entries; and

        an SRAM storage medium accessible by the processor, the storage medium configured to hold instructions that when accessed result in the processor performing:

                counting a number of unique page accesses made by a process; ~~and~~

                determining a value of a page usage metric from the number of unique page accesses;

                determining a number of TLB entries to lock in response to the value of the page usage metric, wherein determining the number of TLB entries to lock comprises considering the value of the page usage metric and values of page usage metrics for other processes; and

                locking at least one TLB entry that corresponds to the process.

29.   (Canceled)

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
Serial Number: 10/602,509
Filing Date: June 24, 2003
Title: DYNAMIC TLB LOCKING
Assignee: Intel Corporation

Page 7
Dkt: 80107.023US1 (INTEL)

30. (Original) The electronic system of claim 29 wherein the page usage metric is based, at least in part, on a frequency of invocation of the process.

31. (New) The method of claim 1 wherein determining the value of the page usage metric comprises considering a number of previously locked TLB entries for the process.

32. (New) The method of claim 6 wherein determining the value of the page usage metric comprises considering an amount of time the process is active.

33. (New) The method of claim 6 wherein the TLB includes a plurality of entries, the method further comprising determining which of the plurality of entries to lock.

34. (New) The method of claim 33 wherein determining which of the plurality of entries to lock comprises selecting a most recently accessed entry.

35. (New) The method of claim 33 wherein determining which of the plurality of entries to lock comprises selecting a most commonly accessed entry.

36. (New) The method of claim 6 wherein determining the value of the page usage metric comprises considering a number of previously locked TLB entries for the process.

37. (New) The method of claim 11 wherein determining the value of the page usage metric comprises considering a number of previously locked TLB entries for the process.

38.   (New) The method of claim 11 wherein considering the value of the page usage metric and values of page usage metrics for other processes running on the processor comprises comparing the value of the page usage metric to a sum of values of page usage metrics for a plurality of processes.

39.   (New) The apparatus of claim 20 wherein determining the value of the page usage metric comprises considering a number of previously locked TLB entries for the process.

40.   (New) The apparatus of claim 20 wherein considering the value of the page usage metric and values of page usage metrics for other processes running on the processor comprises comparing the value of the page usage metric to a sum of values of page usage metrics for a plurality of processes.

41.   (New) The apparatus of claim 20 wherein determining the value of the page usage metric comprises considering an amount of time the process is active.

42.   (New) The electronic system of claim 28 wherein determining the value of the page usage metric comprises considering a number of previously locked TLB entries for the process.

43.   (New) The electronic system of claim 28 wherein considering the value of the page usage metric and values of page usage metrics for other processes running on the processor comprises comparing the value of the page usage metric to a sum of values of page usage metrics for a plurality of processes.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
Serial Number: 10/602,509
Filing Date: June 24, 2003
Title: DYNAMIC TLB LOCKING
Assignee: Intel Corporation

Page 9
Dkt: 80107.023US1 (INTEL)

44. (New) The electronic system of claim 28 wherein determining the value of the page

usage metric comprises considering an amount of time the process is active.